

What is claimed is:

5 1. In a voice-application creation and deployment architecture, a system for preprocessing text strings for VXML view generation and subsequent voice rendering comprising:

a text-to-speech preprocessing logic;

a software table accessible to the preprocessing logic, the table for serving text dialog options related to one or more text entities;

10 a rules base for serving dialog selection constraints; and

a data store for storing the dialog options and text entities;

characterized in that the preprocessing logic accesses the software table during client interaction with a deployed voice application and selects a specific dialog option from more than one dialog options related to a single text entity and inserts the selected option into the VXML page rendering process, the selection made according to the served constraints.

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20 2. The system of claim 1 wherein the text-to-speech preprocessing logic is embedded in a processor.

3. The system of claim 1 wherein the text-to-speech preprocessing logic is a software routine executed before normal dialog processing.

25 4. The system of claim 1 wherein the software table is a generic table that is dynamically populated during voice application interaction.

5. The system of claim 1 wherein the deployment architecture includes an application server and a voice portal.

6. The system of claim 1 wherein the dialog options comprise variant XML renderings of the entity, the entity also an XML text rendering.
- 5      7. The system of claim 1 wherein the rules base serves constraints related to caller demographic data.
8. The system of claim 1 wherein the rules base serves constraints related to region of call origination.
- 10      9. The system of claim 1 wherein the served constraints link to one or more text dialog options served by the software table.
10. The system of claim 4 wherein the dialog options are stored in a data store and are dynamically retrieved and tabled in the software table, retrieval accomplished through resource tagging.
- 15      11. The system of claim 10 wherein the tagging method is HTTP1.1 resource tagging.
- 20      12. The system of claim 1 wherein a selected dialog option replaces a standard text entity in a dialog string being processed.
13. The system of claim 1 wherein the selected dialog options are industry related terms.
- 25      14. The system of claim 1 wherein the dialog options of the text entity or entities are regionally specific.

15. The system of claim 1 wherein the dialog options of the text entity or entities are culturally specific.

5       16. A method for dynamic annotation of voice application response comprising steps of:

          (a) providing a standard dialog portion and at least one variant rendering of the standard dialog portion useable in the voice application response;

10       (b) providing at least one constraint rule associated with selection of one of the at least one variant dialog renderings of the standard dialog portion;

          (c) deploying the voice application to the point of interaction and determining validity or non-validity of the at least one constraint rule;

15       (d) upon validation of the at least one constraint rule, selecting the appropriate one of the at least one variant dialog renderings; and

          (e) replacing the standard text dialog portion with the selected variant dialog rendering.

20       17. The method of claim 16 wherein in step (a) the standard dialog portion and the variant dialog portions are XML text strings containing instructions for voice rendering.

25       18. The method of claim 16 wherein in step (a) the standard dialog portion is provided as one of the variant dialog portions all selectable for use in the voice application response which contains at least one blank portion therein for accommodating a selection.

19. The method of claim 16 wherein in step (a) the at least one variant rendering of the standard dialog portion is stored in a data store and retrievable to a software table.

5      20. The method of claim 16 wherein in step (c) the application is deployed on an architecture that includes a voice application server and a voice portal.

21. The method of claim 16 wherein in step (a) the dialog portion is an XML text entity and the at least one variant rendering is a variant XML rendering  
10      of the text entity.

22. The method of claim 16 wherein in step (b) the constraint rule is one of a cultural, regional, or industry specific constraint.

15      23. The method of claim 16 wherein in step (c) validation of a constraint rule is determined by a preprocessor based on information known about the application recipient.

24. The method of claim 16 wherein in step (c) validation of a constraint  
20      rule is determined by a preprocessor based on information taken from the application recipient at the time of interaction.

25. The method of claim 16 wherein in step (c) the point of interaction precedes a first dialog response.

25      26. The method of claim 16 wherein in step (d) the renderings are selected from a software table populated according to voice application identification.